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ABSTRACT

A series of field tests run over a 2 year period assessed the ability of 125 special education and regular teachers (5 inservice and 1 preservice group) to detect and accurately describe basic attributes of reading miscues before and after training using the Hypothesis/Test Reading Modules. A surprising outcome was the virtual lack of spontaneous teacher mention of meaning, syntactic or auditory/visual attributes when describing/identifying miscues prior to training. Instead, teachers used only gross distinctions, such as omission, insertion, and substitution categories; and failed to describe the more detailed attributes that could provide them with indications of their students' use or disuse of major reading strategies. As expected, the correct identification of attributes associated with these Hypothesis/Test miscue distinctions significantly increase following a Hypothesis/Test Training intervention. Teachers also made gains following training in the detection of reading miscues as well as their identification of such obvious miscues as omissions and insertions, although, unlike the increases in Hypothesis/Test distinctions, test-retest effects contributed to these gains. Teachers consistently rated the Hypothesis/Test Module training program in the highest scale interval when describing its usefulness, relevance, and 10 other descriptors. The study pointed out both the need for teacher training in miscue analysis and the ease and effectiveness of the self instructional Hypothesis/Test Reading Modules in providing such training to a variety of inservice and preservice teachers. Tables with statistical data are included. (Author)

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Assessing Teacher Skill in the Detection and Description of Reading Miscues Before and After Training Using the Hypothesis/Test Reading Modules

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Teacher observations of pupil reading behaviors can be of great importance in diagnosing students' reading strengths and weaknesses and in guiding individualized reading remediation activities, particularly for Special Needs Readers. Teachers often spontaneously focus their attention on differences in the quantity of reading miscues their students make over time. This provides them with a readily observable measure of improvement in reading skill that they can easily communicate to pupils and their parents with statements like: "Johnny, you read that story with hardly any mistakes this time. It's much better than before."

However, teachers are less likely to spontaneously focus attention on students' recurrent patterns of reading miscues in any organized fashion and, thus, are less likely to notice changes in the quality of miscues a student makes over time.

During the past decade, educators (Goodman, 1969, 1973; Goodman & Burke, 1972; Page, 1975; Smith, 1971, 1973) have tried to raise teachers' awareness of the usefulness of using miscue analysis to identify and evaluate the reading strategies used by pupils. Currently, however, many teachers receive little or no formal training in reading miscue analysis. Does the need exist for such training, or do most teachers already possess and use these skills?

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This question is of particular importance in regard to the many special educators working with students with learning disabilities, since the majority of these students have reading problems (Abrams, 1976; Kirk & Elkins, 1975; Wallace & McLoughlin, 1979). Do special educators already recognize which meaning, syntactic or graphophonemic sources of language information their "special needs" readers may be relying on and/or ignoring when reading? Specifically, when asked to describe a student's reading miscues in context to the best of their ability, will special educators spontaneously mention whether or not the miscues retained meaning, syntactic, and visual-auditory information?

Personal communications with many inservice teachers suggested that even those teachers who have already been introduced to systems of miscue analysis often complain that it is too confusing to learn or too time consuming to actually apply in the classroom. Further classroom observations have indicated that teachers often fail to make use of miscue analysis information in the two situations where it could prove most helpful to their decision-making: 1) When responding to pupil miscues during oral reading sessions; and 2) When planning individualized reading instruction which, for special education teachers or regular teachers working with special education students who have been mainstreamed, often includes the development of reading goals and objectives for Individual Education Programs (IEP's). Studies of teachers' decision making have found that good teachers tend to apply teacher decision making rules in both of these situations, both interactively when working directly with a student and proactively, when planning instruction (Shulman & Elstein, 1975; Morine, 1975; Intili, 1976).

Do inservice teachers, particularly those working with problem readers, have the prerequisite skills to apply information concerning quantity and

quality of student miscues in their proactive and interactive decision making during reading instruction? The following research was undertaken to obtain data concerning this question. The purpose of this research was: 1) to assess the present level of skill teachers demonstrate when asked to observe and describe both the quantity and quality of student reading miscues; 2) to assess teacher behaviors on the same task after teachers receive an educational intervention which presents them with an organized system of miscue analysis as one of its components; 3) to assess teachers' judgments concerning the practicality and usefulness of the training intervention received and their willingness to recommend such training to other teachers.

The training intervention consisted of working through the Hypothesis/Test (H/T) Reading Modules (Terry, 1980). The H/T Reading Modules are a set of five self-instructional multimedia teacher training modules concerning reading. One of the modules focuses specifically on the identification of pupil reading miscues. It is designed to give teachers a quick and easy way to take quality of miscues into account both when planning reading remediation activities for students and when responding interactively during oral reading sessions.

The classification of miscues according to the Hypothesis/Test Reading Observation System taxonomy (Terry, 1980), a low inference coding system for classifying student reading behaviors, teacher responses and student-teacher interactive behavior chains during oral reading, consists of the following ten types: 1) Omissions; 2) Insertions; 3) Nonsense (nonword) substitutions; 4) Proper Noun Substitution; and Real Word substitutions which are further specified as: 5) Meaning Similar, Visually Similar; 6) Meaning Similar,

Visually Different; 7) Meaning Different, Correct Syntax, Visually Similar; 8) Meaning Different, Correct Syntax, Visually Different; 9) Meaning Different,Incorrect Syntax, Visually Similar; and 10) Meaning Different, Incorrect Syntax, Visually Different.

Real word substitutions, normally the most frequently occurring type of student reading miscue, (Barr, 1974-1975; Clay, 1968; Burke & Goodman, 1970; Y. Goodman, 1976; Terry, 1980) are further classified according to the three major sources of language information: Semantic, syntactic and graphophonemic information.

Successful readers learn to draw on these sources of information when reading. However, the miscue patterns of many special needs readers reveal that they often focus on just one or two rather than all three sources of language information (Terry, 1980). Studies have also shown that non-handicapped beginning readers often use one predominant word identification strategy to the exclusion of others which is often a function of their mode of instruction (Barr, 1974-1975). Thus, instruction in miscue analysis should increase teacher awareness of which types of word identification strategies their students are using and which they are ignoring. This should aid teachers in drawing their students' attention to all sources of information available when reading.

Before investigating this question, however, it is necessary to ascertain whether teachers already are aware of and spontaneously use terms related to the semantic, syntactic and graphophonemic components of language to describe student reading miscues.

The purpose of this investigation was to substantiate teachers' need for the miscue identification information contained in the Hypothesis/Test

Reading Modules. This was accomplished by assessing their ability to detect oral reading miscues and analyzing the specificity and accuracy with which they were then able to describe them. Measures were thus collected of teachers' skill in accurately assessing both the quantity and quality of oral reading miscues.

Methods

Subjects

To promote generalizability of results, 125 teachers from five diverse groups of inservice teachers and one group of preservice teachers were studied. The teachers were mainly Special Education teachers, but several regular teachers working with mainstreamed children with mild mental handicaps or problems in learning to read were also included. Each sample included teachers at elementary, middle and high school levels with approximately half of them teaching in elementary schools and the rest in higher grades. The six groups of teachers were drawn from a variety of communities in Indiana and Illinois. The teachers included two groups (A & B) drawn from small town University community suburban areas, one group (C) from a rural 8-county area, two groups (D & E) drawn from inner-city urban areas, and one group (F) of preservice special education teachers attending a Big-Ten University. Teachers from 80 different schools participated in the studies.

Procedures

Before and after receiving the training intervention, which consisted of working through the Hypothesis/Test Reading Modules, teachers listened to a tape recording of a child reading a story. The story had been scripted to include ten instances of each of the ten categories of miscues included in the Hypothesis/Test Reading Observation System which were listed previously.

After listening to the tape recording and marking any miscues they heard onto a copy of the text, the teachers were asked to refer to their marked copy of the miscues in context in order to: 1) list the miscues in order of occurrence, 2) compare them to the original text, and 3) identify or describe each miscue to the best of their ability. In scoring, the use of any similar term was counted as correct (e.g., "left out a word", "missing" or "deletion" received credit for omission; "addition" received credit for insertion; "looks the same","same except for first letter" and similar descriptions received credit for auditory/visual similarity, etc.).

Over a two-year period, the six separate groups of teachers listened to the tape recording and filled out the questionnaires describing the miscues both before and after viewing the Hypothesis/Test (H/T) Reading Modules. The pre and posttests were administered approximately two months apart. During the interval following the H/T module instructional intervention, the teachers were asked to apply the miscue analysis information by the assessing the quality of two of their own students' miscues.

Hypotheses

Based on the content of Hypothesis/Test Module Two, "The Identification of Reading Miscues," it was hypothesized that correct identification of the attributes associated with miscue distinctions based on the H/T taxonomy would increase significantly after training using the H/T Modules. These attributes included stating whether or not real word miscues were meaningful, grammatical and/or similar visually or auditorally to the original text word in the story context as well as noting the additional categories of non-words and proper nouns. The correct identification of miscues not unique to the H/T taxonomy, including omissions, insertions, self-corrections by the child,

and the mere detection of reading miscues, was expected to increase to a much lesser extent if at all, since it was felt that most teachers would be very accurate at these distinctions and thus, close to ceiling levels already.

Results

Correlated t-tests run on the data gathered from each group of teachers at the six different field test sites demonstrated significant effects over time for all groups indicating increases in correct miscue identifications following Hypothesis/Test Module training (See tables 1-9 for t-values).

A discriminant analysis was conducted on the two sets of dependent variables, H/T miscue distinctions and obvious miscue distinctions, used in the correlated t-tests. Learning gains associated with the attributes of reading miscues uniquely defined by the H/T system made the dominant contribution to the discriminant function which was itself significant at the $p < .001$ level (See Tables 1-6). Over the six field tests, H/T miscue distinctions increased from a range of 1% to 11% overall correct on the pretest to a range of 71% to 88% on the posttest. Detection of miscues and the correct identification of such obvious categories as omissions, insertions and self corrections increased to a much lesser extent (from a range of 65% to 82% correct on the pretest to a range of 86% to 94% correct on the posttest). (See Table 9). Descriptively speaking, learning gains were found for each of the ten depicted miscue types, (See Tables 1-9 for means and standard deviations), although the gains in H/T miscue distinctions made the overwhelming contribution to learning gains.

Discussion

It is clear that the H/T instructional materials were effective in introducing teachers to the concepts of the H/T taxonomy. A surprising outcome was the extremely low incidence, prior to training, of teachers

even mentioning the meaning, grammatical or auditory/visual attributes of the miscues they detected when asked to describe them.

The learning gains from such extremely low initial levels seem to indicate that these teachers were either being introduced to miscue distinctions of which they were previously unaware or found such distinctions too confusing or time-consuming with which to bother. Teacher comments indicated that both explanations were true of different teachers. Several teachers stated on written evaluations that the H/T miscue analysis information was new to them and they only wished they had had access to it sooner in their teaching careers. This was in spite of the fact that almost all of the teachers, including the preservice teachers, had had several college courses in Reading (mean of 3.6 reading courses) where one might expect them to have been exposed to this type of information.

Other teachers indicated their prior awareness with other miscue analysis systems by making comparisons, such as: [The H/T] "miscue analysis is better than other systems," "much more efficient than the RMI," etc. In spite of this evidence of prior contact with miscue analysis, however, the teachers did not spontaneously use semantic, syntactic and auditory/visual attributes to describe students' reading miscues prior to H/T Module training.

This virtual lack of use by teachers of these standard language attributes to describe reading miscues raised the question, What terms are teachers using to describe student miscues prior to training? An analysis of the pre-test responses of teachers on the miscue identification questionnaire revealed that the teachers are noting only major category distinctions. In terms of the Hypothesis/Test Reading Observation System taxonomy of reading miscues (See Figure I), the teachers are describing miscues at only the grossest level, noting distinctions between omissions, insertions and substitutions, but are

not describing substitutions in greater detail. As such, they are failing to demonstrate an awareness of the use of reading miscues as indicators of the reading strategies used and/or ignored by their students.

During the initial replications of the field test procedures, a rather surprising outcome had been the finding that in addition to huge increases in H/T miscue attributes described after training, there were also significant gains in the mere detection of reading miscues as well as in the identification of such obvious miscues as omissions, insertions and self-corrections. During the second year of field tests, a more refined pretest-posttest control group design (Group E) helped clarify this situation. A midpoint comparison of scores on the miscue identification questionnaire indicated that although the experimental group already receiving Hypothesis/Test training increased more than the control group on correct identifications of obvious miscues, they did not quite achieve significance ($p < .11$), since the control group increased as well. Thus, changes in teachers' abilities to correctly categorize obvious miscue distinctions occur due to a test-retest effect as well as due to H/T module training. However, this finding only serves to make more apparent the lack of any test-retest effect on the control group in using Hypothesis/Test attributes (meaning, syntax, visual similarity, nonsense and proper noun substitutions) to describe student miscues (See Tables 7 and 8).

In the area of consumer satisfaction, teachers were extremely pleased with the usefulness of the H/T miscue analysis in providing them with a detailed assessment of student reading strengths and weaknesses. On a rating scale of 1 to 6, teachers rated the H/T modules according to their degree of usefulness, appropriateness, organization, clarity and nine other descriptors. The mean ratings of all six groups of teachers consistently fell in the highest scale

interval indicating great teacher satisfaction with the training intervention. Teachers stated, that they found the Hypothesis/Test training useful in evaluating incorrect reading responses for remediation. They also stated that they planned to use information from the H/T Modules in their future teaching and also highly recommended them to other teachers.

In summary, the miscue identification training component of the H/T reading modules helped teachers become more aware of different types of student reading behaviors and become more exact in their descriptions of them. Teachers learned to consider the semantic, syntactic and visual/auditory attributes of miscues. These serve as important clues to sources of reading information being overlooked by their pupils and can be used to guide individualized reading instruction.

This study pointed out both the need for teacher-training in miscue analysis and the effectiveness of the self-instructional Hypothesis/Test Reading Modules in providing such training to a variety of inservice teachers.

Further research is in progress involving taped teacher-pupil oral reading interactions, which are being analyzed to assess any changes in actual teacher/pupil behaviors as a result of learning the miscue distinctions and other information contained in the Hypothesis/Test training intervention.

H/T MISCUE IDENTIFICATION
TEST RESULTS
Group A (Fall 1980) N = 16

Table 1

Mean Success Rate Percentages by Individual
Miscue Distinctions Before and After H/T Treatment

OBVIOUS READING MISCUE DISTINCTIONS	PRETEST MEAN %	STANDARD DEVIATION	POSTTEST MEAN %	STANDARD DEVIATION
Miscue Detection	74	16	85	5
Word Omissions	86	25	96	9
Word Insertions	68	37	97	7
Reader Miscue Self-Correction	32	26	74	22
Overall Obvious* Reader Miscue Distinctions	65	20	88	7

* t (15) = -4.35, $p < .001$

H/T READING MISCUE DISTINCTIONS				
Real Word Meaning Attribute	7	10	87	10
Real Word Syntax Attribute	0	1	71	24
Real Word Visual Attribute	2	4	87	10
Nonsense Attribute	1	3	63	34
Proper Noun Attribute	0	0	82	32
Overall H/T* Reader Miscue Distinctions	2	2	78	18

* t (15) = -16.70, $p < .001$

Pretest/Posttest Discriminant Function For Overall Scores

Eigenvalue	Cannonical Correlation	Chi-Square	Function Group Centroids Pre	Post
9.29	.95	67.62*	-2.95	+2.95

Standardized Discriminant
Function Coefficients

Overall Obvious Miscue Distinctions	.01
Overall H/T Miscue Distinctions	.99

* χ^2 (2), $p < .001$

H/T MISCUE IDENTIFICATION
TEST RESULTS
Group B (Spring 1981) N = 10

Table 2

Mean Success Rate Percentages by Individual
Miscue Distinctions Before and After H/T Treatment

OBVIOUS READING MISCUE DISTINCTIONS	PRETEST MEAN %	STANDARD DEVIATION	POSTTEST MEAN %	STANDARD DEVIATION
Miscue Detection	80	5	85	3
Word Omissions	88	16	98	4
Word Insertions	86	13	96	8
Reader Miscue Self-Correction	46	30	79	8
Overall Obvious* Reader Miscue Distinctions	75	9	90	3

* t (9) = -4.88, $p < .001$

H/T READING MISCUE DISTINCTIONS				
Real Word Meaning Attribute	21	26	89	4
Real Word Syntax Attribute	11	16	80	11
Real Word Visual Attribute	7	10	87	6
Nonsense Attribute	12	31	81	18
Proper Noun Attribute	2	7	84	32
Overall H/T* Reader Miscue Distinctions	11	11	84	10

* t (9) = -15.61, $p < .001$

Pretest/Posttest Discriminant Function For Overall Scores

Eigenvalue	Cannonical Correlation	Chi-Square	Function Group Centroids Pre	Post
16.57	.97	48.72*	-3.86	+3.86

Standardized Discriminant
Function Coefficients

Overall Obvious Miscue Distinctions	.43
Overall H/T Miscue Distinctions	.97

* χ^2 (2), $p < .001$

H/T MISCUE IDENTIFICATION
TEST RESULTS
Group C (Spring 1981) N = 21

Table 3

Mean Success Rate Percentages by Individual
Miscue Distinctions Before and After H/T Treatment

OBVIOUS READING MISCUE DISTINCTIONS	PRETEST MEAN %	STANDARD DEVIATION	POSTTEST MEAN %	STANDARD DEVIATION
Miscue Detection	74	7	83	6
Word Omissions	81	19	98	4
Word Insertions	88	11	95	7
Reader Miscue Self-Correction	54	35	94	7
Overall Obvious* Reader Miscue Distinctions	74	14	92	3

* t (20) = -5.80, $p < .001$

H/T READING MISCUE DISTINCTIONS				
Real Word Meaning Attribute	2	3	88	6
Real Word Syntax Attribute	0	2	73	23
Real Word Visual Attribute	1	3	85	19
Nonsense Attribute	1	6	90	15
Proper Noun Attribute	0	0	79	20
Overall H/T* Reader Miscue Distinctions	1	1	83	9

* t (20) = -40.46, $p < .001$

Pretest/Posttest Discriminant Function For Overall Scores

Eigenvalue	Cannonical Correlation	Chi-Square	Function Group Centroids Pre	Post
41.62	.99	146.34*	-6.29	+6.29

Standardized Discriminant
Function Coefficients

Overall Obvious Miscue Distinctions	.13
Overall H/T Miscue Distinctions	.99

* χ^2 (2), $p < .001$

H/T MISCUE IDENTIFICATION
TEST RESULTS
Group D (Spring 1981) N = 30

Table 4

Mean Success Rate Percentages by Individual
Miscue Distinctions Before and After H/T Treatment

OBVIOUS READING MISCUE DISTINCTIONS	PRETEST MEAN %	STANDARD DEVIATION	POSTTEST MEAN %	STANDARD DEVIATION
Miscue Detection	74	9	84	7
Word Omissions	84	16	92	12
Word Insertions	76	23	91	12
Reader Miscue Self-Correction	45	27	76	15
Overall Obvious* Reader Miscue Distinctions	70	14	86	7

* t (28) = -5.54, $p < .001$

H/T READING MISCUE DISTINCTIONS				
Real Word Meaning Attribute	3	6	76	23
Real Word Syntax Attribute	2	5	58	27
Real Word Visual Attribute	2	5	78	22
Nonsense Attribute	2	8	75	26
Proper Noun Attribute	0	2	67	31
Overall H/T* Reader Miscue Distinctions	2	4	71	20

* t (28) = -18.05, $p < .001$

Pretest/Posttest Discriminant Function For Overall Scores

Eigenvalue	Cannonical Correlation	Chi-Square	Function Group Centroids Pre	Post
5.82	.92	105.57*	-2.37	+2.37

Standardized Discriminant
Function Coefficients

Overall Obvious Miscue Distinctions	.00
Overall H/T Miscue Distinctions	.99

* χ^2 (2), $p < .001$

H/T MISCUE IDENTIFICATION
TEST RESULTS

Group E (Fall-Spring 1981-82) N = 21

Table 5

Mean Success Rate Percentages by Individual
Miscue Distinctions Before and After H/T Treatment

OBVIOUS READING MISCUE DISTINCTIONS	PRETEST MEAN %	STANDARD DEVIATION	POSTTEST MEAN %	STANDARD DEVIATION
Miscue Detection	78	7	82	4
Word Omissions	86	21	96	8
Word Insertions	96	14	100	0
Reader Miscue Self-Correction	53	26	84	11
Overall Obvious* Reader Miscue Distinctions	77	13	90	4

* $t_{(20)} = -4.5$, $p < .001$

H/T READING MISCUE DISTINCTIONS				
Real Word Meaning Attribute	8	16	83	19
Real Word Syntax Attribute	2	6	74	24
Real Word Visual Attribute	9	13	86	20
Nonsense Attribute	2	8	73	32
Proper Noun Attribute	3	15	78	37
Overall H/T* Reader Miscue Distinctions	5	10	79	25

* $t_{(20)} = -12.32$, $p < .001$

Pretest/Posttest Discriminant Function For Overall Scores

Eigenvalue	Cannonical Correlation	Chi-Square	Function Group Centroids Pre	Post
4.01	.89	59.65*	-1.95	+1.95

Standardized Discriminant
Function Coefficients

Overall Obvious Miscue Distinctions	.07
Overall H/T Miscue Distinctions	.98

* χ^2 (2), $p < .001$

H/T MISCUE IDENTIFICATION
TEST RESULTS

Group F (Summer 1981) N=21

Table 6

Mean Success Rate Percentages by Individual
Miscue Distinctions Before and After H/T Treatment

OBVIOUS READING MISCUE DISTINCTIONS	PRETEST MEAN %	STANDARD DEVIATION	POSTTEST MEAN %	STANDARD DEVIATION
Miscue Detection	76	9	82	6
Word Omissions	90	17	97	6
Word Insertions	90	12	98	4
Reader Miscue Self-Correction	73	22	97	6
Overall Obvious* Reader Miscue Distinctions	82	8	94	3

* $t(20) = -6.17$, $p < .001$

H/T READING MISCUE DISTINCTIONS				
Real Word Meaning Attribute	6	8	91	7
Real Word Syntax Attribute	2	7	82	11
Real Word Visual Attribute	1	4	88	16
Nonsense Attribute	1	4	89	24
Proper Noun Attribute	0	0	90	22
Overall H/T* Reader Miscue Distinctions	2	3	88	11

* $t(20) = -35.17$, $p < .001$

Pretest/Posttest Discriminant Function For Overall Scores

Eigenvalue	Cannonical Correlation	Chi-Square	Function Group Centroids Pre	Post
31.22	.98	135.44*	-5.45	5.45

Standardized Discriminant
Function Coefficients

Overall Obvious Miscue Distinctions	.10
Overall H/T Miscue Distinctions	.99

* χ^2 (2), $p < .001$

H/T MISCUE IDENTIFICATION
TEST RESULTS

Group E (Experimental)

Table 7

Mean Success Rate Percentages by Individual
Miscue Distinctions Before and After H/T Treatment

OBVIOUS READING MISCUE DISTINCTIONS	PRETEST MEAN %	STANDARD DEVIATION	MIDTEST* MEAN %	STANDARD DEVIATION
Miscue Detection	79	4	83	4
Word Omissions	95	10	94	8
Word Insertions	89	15	100	0
Reader Miscue Self-Correction	69	14	86	11
Overall Obvious* Reader Miscue Distinctions	83	7	91	5
H/T READING MISCUE DISTINCTIONS				
Real Word Meaning Attribute	11	22	89	12
Real Word Syntax Attribute	2	2	79	20
Real Word Visual Attribute	14	17	92	12
Nonsense Attribute	3	11	82	22
Proper Noun Attribute	7	21	90	18
Overall H/T* Reader Miscue Distinctions	7	14	86	16

* After receiving Hypothesis/Test Module training

H/T MISCUE IDENTIFICATION
TEST RESULTS

Group E (Control)

Table 8

Mean Success Rate Percentages by Individual
Miscue Distinctions Before and After H/T Treatment

OBVIOUS READING MISCUE DISTINCTIONS	PRETEST MEAN %	STANDARD DEVIATION	MIDTEST* MEAN %	STANDARD DEVIATION	POSTTEST MEAN %	STANDARD DEVIATION
Miscue Detection	78	9	81	7	81	4
Word Omissions	79	26	96	7	98	7
Word Insertions	91	13	95	8	100	0
Reader Miscue Self-Correction	36	25	70	13	81	11
Overall Obvious* Reader Miscue Distinctions	71	14	86	4	90	4
H/T READING MISCUE DISTINCTIONS						
Real Word Meaning Attribute	4	5	5	7	77	23
Real Word Syntax Attribute	2	7	8	22	69	27
Real Word Visual Attribute	3	6	0	1	80	26
Nonsense Attribute	1	4	0	0	64	39
Proper Noun Attribute	0	0	0	0	66	47
Overall H/T* Reader Miscue Distinctions	2	3	3	5	71	30

*Prior to receiving Hypothesis/Test Module training

Table 9

Summary Group Mean Success Rate Percentages by Individual Miscue Distinctions Before and After H/T Treatment

OBVIOUS READING MISCUE DISTINCTIONS		PRETEST MEAN %						POSTTEST MEAN %					
	Group	A	B	C	D	E	F	A	B	C	D	E	F
Miscue Detection	$\bar{X}$	74	80	74	74	78	76	85	85	83	84	82	82
	SD	(16)	(5)	(7)	(9)	(7)	(9)	(5)	(3)	(6)	(7)	(4)	(6)
Word Omissions		86	88	81	84	81	90	96	98	98	92	96	97
		(25)	(16)	(19)	(16)	(21)	(17)	(9)	(4)	(4)	(12)	(8)	(6)
Word Insertions		68	86	88	76	90	90	97	96	95	91	100	98
		(37)	(13)	(11)	(23)	(14)	(12)	(7)	(8)	(7)	(12)	(10)	(4)
Reader Miscue Self-Correction		32	46	54	45	53	73	74	79	94	76	84	97
		(26)	(30)	(35)	(27)	(26)	(22)	(22)	(8)	(7)	(15)	(11)	(6)
Overall Obvious Reader Miscue Distinctions		65	75	74	70	77	82	88	90	92	86	90	94
		(20)	(9)	(14)	(14)	(13)	(8)	(7)	(3)	(3)	(7)	(4)	(3)
H/T READING MISCUE DISTINCTIONS													
Real Word Meaning Attribute		7	21	2	3	8	6	87	89	88	76	83	91
		(10)	(26)	(3)	(6)	(16)	(8)	(10)	(4)	(6)	(23)	(19)	(7)
Real Word Syntax Attribute		0	11	0	2	2	2	71	80	73	58	74	82
		(1)	(16)	(2)	(5)	(6)	(7)	(24)	(11)	(23)	(27)	(24)	(11)
Real Word Visual Attribute		2	7	1	2	9	1	87	87	85	78	86	88
		(4)	(10)	(3)	(5)	(13)	(4)	(10)	(6)	(19)	(22)	(20)	(16)
Nonsense Attribute		1	12	1	2	2	1	63	81	90	75	73	89
		(3)	(31)	(6)	(8)	(8)	(4)	(34)	(18)	(15)	(26)	(32)	(24)
Proper Noun Attribute		0	2	0	0	3	0	82	84	79	67	78	90
		(0)	(7)	(0)	(2)	(15)	(0)	(32)	(32)	(20)	(31)	(37)	(22)
Overall H/T Reader Miscue Distinctions		2	11	1	2	5	2	78	84	83	71	79	88
		(2)	(11)	(1)	(4)	(10)	(3)	(18)	(10)	(9)	(20)	(25)	(11)

Group A - Inservice teachers from a University town suburban area; Group B - Inservice teachers from a University suburb; Group C - Inservice teachers from a rural area; Group D - Inservice teachers from an urban inner-city area; Group E - Inservice teachers from an urban inner-city area; Group F - Preservice teachers from a Big 10 University, Special Education class.

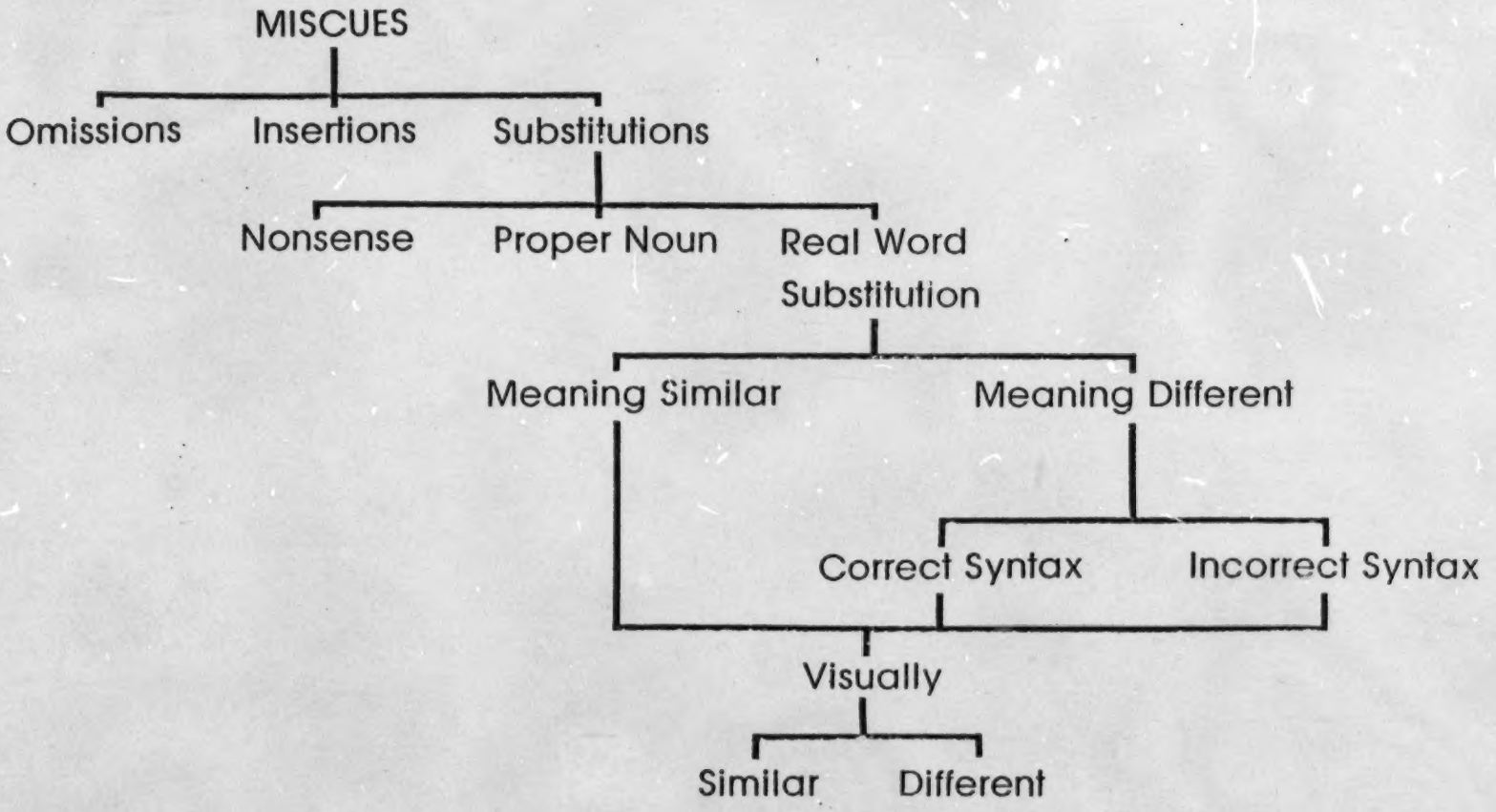

Figure 1: Hypothesis/Test Reading Observation System Taxonomy of Reading Miscues

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